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C.1 SCOPE

The purpose of this contract is to provide safety management system and system safety programmatic support. Contractor support is required to assist the Air Traffic Organization's (ATO) Safety Management System (SMS) Office, hereon referred to as the "Office", with project planning, database development and maintenance, Office documentation preparation, and configuration control of all documents developed, maintained, and/or controlled by the Office. The Contractor must provide all necessary labor and materials to accomplish these objectives.

C.2 BACKGROUND

In November of 2001, the International Civil Aviation Organization (ICAO) issued amendment 40 to Annex 11 and Amendment 4 to the Procedures for Air Navigation Services – Air Traffic Management (PANS-ATM), requiring States to implement formal safety management procedures for their air traffic services. In accordance with this mandate, the FAA instituted the Office of Aviation Oversight (AOV) and within the Air Traffic Organization (ATO) the Safety Services. Safety Services (ATO-S) developed a Safety Management System that incorporates the requirements levied via ICAO and AOV.

The Air Traffic Organization (ATO) Safety Services is the focal point for the application of the FAA's Safety Management System principles which include: safety policy, safety risk management, safety assurance (safety audits, evaluations, quality assurance and quality control), and safety promotion (SMS training, promoting an open and proactive safety culture, reporting findings to improve safety performance, and related actions). ATO-S acts as the liaison to the FAA's Aviation Safety Office (AVS) offices, and also undertakes special projects to facilitate increasing the safety of the National Airspace System.

C.3 REFERENCES

The following references and updated references that are added by contract modification will govern Contractor performance. All of the references identified below may be found on the FAA website with the exception of the FAA Safety Management System Manual which is available upon request.

FAAO 7110.65	Air Traffic Control
FAAO 7210.3	Facility Operations and Administration
FAAO 3120.4	Air Traffic Technical Training
FAAO 7110.10	Flight Services
FAAO 1100.161	Air Traffic Safety Oversight
ATO JO1000.37	Safety Management System Order
FAA Safety Manage	ment System Manual
ICAO Annex 11 and	Related Documents

C.4 KNOWLEDGE/EXPERIENCE REQUIREMENTS

The contractor must provide personnel who have the qualifications in order to perform this Statement of Work effectively

- a. Knowledge of Acquisition Management System (AMS) policy and the FAA Acquisition Toolset (FAST).
- b. Knowledge of FAA Orders, Federal Aviation Regulations, Advisory Circulars, applicable laws, regulations (e.g., Code of Federal Regulations), ICAO requirements pertinent to the implementation and maintenance of Safety Management System (SMS) and other documentation as it applies to control and mitigation of aviation related hazards.
- c. Knowledge of methodology for conducting Operational System Analysis (OSA), Comparative System Analysis (CSA), Preliminary Hazard Analysis (PHA), System Hazard Analysis (SHA), Sub-System Hazard Analysis (SSHA), and Operating and Support Hazard Analysis (O&SHA) analysis in accordance with the Safety Management System (SMS) requirements, Safety Risk Management Guidance for System Acquisitions (SRMGSA, System Safety Assessment Report (SSAR), Hazard Tracking and Risk Resolution (HTRR), Non-Punitive Voluntary Confidential Safety Reporting System, and Safety Culture including, but not limited to, Safety Culture Survey Analysis and Safety Climate Assessment.
- d. Knowledge of the FAA's National Airspace System (NAS,) including its constituent parts, their interdependencies and their interconnectivity of the various airspace domains, including, tower, terminal, en route, oceanic, and airports. (Note: this knowledge is necessary in order to properly assess NAS Change Proposals (NCP's) for impact to safety as it applies to the system being changed, as well as for the potential impact to interfacing systems).
- e. Knowledge of the current and future technology for communication, navigation, surveillance, and air traffic management systems.
- f. Knowledge and understanding of planned programs for NAS Modernization, which include, but are not limited to, En Route Automation Modernization (ERAM), Capstone, Primary Radar Programs, Automatic Dependent Surveillance Broadcast/Surveillance & Broadcast Services (ADS-B/SBS), Wide-Area and Local Area Augmentation System (WAAS/LAAS), Next Generation Communications System (NEXCOM), Unmanned Aerial Systems (UASs), and FAA Telecommunications Infrastructure (FTI and Next Generation Air Transportation System (NEXGEN).

- g. Technical and operational experience supporting audit processes, including but not limited to process overview, execution, metrics, checklists, evaluation plans, developing/collating lessons learned, documentation, out-briefings, and feedback mechanisms.
- Knowledge of document change proposals and general notice format, tracking, and development.
- Knowledge of Orders, Notices, Guidance Documents, and National Airspace Systems' (NAS) automated processes.

C.5 TASKING REQUIREMENTS

C.5.1 Program Management Support

- a. Provide support to the SMS Directorate before and after meetings the Office conducts or supports, including documenting decisions reached, action items assigned, and dissemination of minutes.
- b. Support, maintain and upgrade the implementation of a Non-punitive Voluntary Confidential Safety Reporting Legacy System for all ATO employees, including tracking hazards, analyzing issues identified, developing a lessons learned database as a training tool, and supplying metrics to identify areas that need improvement.
- c. Support the execution, refinement, and implementation of surveys used to gathered information on the present state of safety climate and culture within the ATO. Analyze the surveys and develop an ATO safety climate assessment action plan for culture change, including documenting lessons learned, and developing matrices and databases.
- d. Support the implementation of a "best practices", employee suggestions, lessons learned repository, and safety promotion products, including brochures, movies, interactive media, and briefings.
- e. Populate and Maintain the Knowledge Shared Network (KSN) website with pertinent SMS documents.
- f. Provide instructors and course materials in contractor format for classroom training of SMS courses and supply subject matter expertise in development of online/Computer Based Instruction (CBI) that provide core competencies for Safety and Safety Risk Management professionals.
- g. Support SMS coordinators in the development, review, and evolution of training materials based on the SMS manual.
- h. Provide tracking of training deliverables, and support the reproduction of materials used in training deliverables.

- a. Assist the Directorate in establishing and writing technical guidance for SMS implementation.
- b. Assist in the development, design and/or acquire SMS Directorate approved software databases. Populate and manage databases for program use by the SMS Directorate.
- c. Provide Instructional System Design support to projects, programs, and training courses/classes in contractor format for SMS use.

C.5.2 Engineering Support

- a. Provide expertise in the assessment of all NAS changes assigned.
- b. Provide support and expertise to the Office in the evaluation of safety analyses and assessments, submitted for review to ensure compliance with Office guidance.
- c. Maintain a database of all waiver submissions and provide monthly analysis of pending and anticipated waiver submissions.
- d. Serve as a subject matter expert in the area of system safety engineering and support, providing recommendations for current/proposed NAS systems and equipment safety issues.
- e. Assist in the development of Safety Support tools, techniques and technical documentation to support the AMS process.
- f. Provide the necessary programmatic processes, training and policy expertise required to assist with installation and full implementation of SMS throughout the ATO and the Agency.

C.5.3 Acquisition and Business Support

- a. Assist in the development of a web-based database Non-Punitive Voluntary Confidential Safety Reporting System for all ATO employees at SMS direction.
- b. Provide support and subject matter expertise to the SMS representative(s) as requested on committees, groups and boards in carrying forward SMS business case activities.
- c. Provide process expertise on the FAA system safety engineering process in support of the AMS for acquisition of systems in the NAS.
- d. Assist in the development of SMS tools, techniques, and technical guidance documents as they pertain to the conduct of safety analysis as it is conveyed in the AMS.

C.5.4 Data Management Support

- a. Provide technical support to the automated Safety Risk Management Tracking System (SRMTS) which is a web-based hazard tracking system used to track hazards relating to new systems acquisitions and operational changes to the NAS. Support policy, procedures, design and development of the SRMTS, including maintenance changes.
- b. Assist in the development of integrated safety engineering tools to train safety engineers, system safety engineers, and safety managers on the FAA system safety process for new systems acquisitions and major changes to the existing systems in the NAS.

C.6 Quality Control Plan

The Contractor shall prepare, implement, and maintain a Quality Control Plan to ensure compliance with all requirements of the Statement of Work during the life of the contract. The Contractor shall develop the Quality Control Plan to ensure the overall and continued quality of Contractor performance, and shall specifically address: (1) how the Contractor proposes to establish and maintain full compliance with all requirements of this contract; (2) how the Contractor plans to ensure that the required number of resources will be applied to an effort, without waste; and (3) how billable hours of all labor categories will be generated, validated, and certified by the Contractor to ensure that valid invoices are submitted for payment. In addition, the Quality Control Plan shall provide a detailed quality performance methodology applicable to the specific requirements to be performed, to include how the highest quality of services will be furnished; how the plan was developed; how it will be implemented; and how it will be maintained over the life of the contract.

A final version of the Contractor's quality control plan shall be furnished to the Contracting Officer within 60 calendar days after contract award. This final Plan shall include all changes, if any, required from the review of the initial plan during the proposal evaluation phase.

Upon acceptance of the final Quality Control Plan by the Contracting Officer (CO), the Contractor shall make no further changes to this plan without the prior written approval of the CO. The Contractor shall be required to review the Quality Control Plan on an annual basis and update the Plan as necessary. The CO and the authorized Contracting Officer's Technical Representative shall be notified of this review and any Quality Control Plan updates that result from this review must be approved by the CO.

C.7 Reports

The contractor must provide on a monthly basis, metrics as identified by the FAA, detailing the results of all safety cases reviewed and lessons learned or trends identified previously to be used for continuous process improvement and upward reporting of ATO performance. This information shall be delivered in Microsoft Office format and using best practices.